

I. AMENDMENT

Please amend claim 1 as follows. Please add new claims 113-137, and please cancel pending claims 2-5, 8-14, 19-29 and 101 –112, without prejudice. The following listing of claims will replace all prior versions and listings of claims in the application.

1. (Currently Amended) A core-spun yarn comprising a plurality of continuous conductive fibers, together with a plurality of staple fibers chosen from the group consisting of non-metallic, non-carbonized conductive staple fibers, quasi-conductive staple fibers and mixtures of non-metallic, non-carbonized conductive and quasi-conductive staple fibers, the fibers from this group making up at least about 35 percent by weight of the staple fibers in the yarn.

2 – 29. (Cancelled)

30. (Withdrawn) A fabric comprising a plurality of yarns, at least some of the yarns comprising a plurality of staple fibers chosen from the group consisting of conductive staple fibers, quasi-conductive staple fibers and mixtures of conductive and quasi-conductive staple fibers, the fibers from this group making up at least about 35 percent by weight of the staple fibers in those yarns in which said plurality of staple fibers are incorporated.

31. (Withdrawn) The fabric of claim 30, wherein the plurality of staple fibers from said group makes up at least about 50 percent by weight of the staple fibers in those yarns in which said plurality of staple fibers are incorporated.

32. (Withdrawn) The fabric of claim 30, wherein the plurality of staple fibers from said group makes up substantially 100 percent of the staple fibers in those yarns in which said plurality of staple fibers are incorporated.

33. (Withdrawn) The fabric of claim 30, wherein the plurality of staple fibers comprises at least some conductive staple fibers.
34. (Withdrawn) The fabric of claim 33, wherein the individual conductive staple fibers have a DC linear resistance less than about 10^9 ohms per centimeter.
35. (Withdrawn) The fabric of claim 34, wherein at least some of the conductive staple fibers comprise metal.
36. (Withdrawn) The fabric of claim 34, wherein at least some of the conductive staple fibers comprise non-conductive polymer and are coated with metal.
37. (Withdrawn) The fabric of claim 34, wherein at least some of the conductive staple fibers comprise carbon-loaded polymer.
38. (Withdrawn) The fabric of claim 34, wherein at least some of the conductive staple fibers comprise polymer loaded with antimony-doped tin oxide.
39. (Withdrawn) The fabric of claim 34, wherein at least some of the conductive staple fibers comprise non-conductive polymer solution-coated with one or more electrically-conductive polymers.
40. (Withdrawn) The fabric of claim 34, wherein at least some of the conductive staple fibers comprise inherently-conductive polymer.
41. (Withdrawn) The fabric of claim 34, wherein at least some of the conductive staple fibers are bicomponent staple fibers.
42. (Withdrawn) The fabric of claim 41, wherein the individual bicomponent staple fibers each comprise

a first longitudinally-extending constituent formed of at least one fiber-forming non-conductive polymer; and

a second longitudinally-extending constituent formed of at least one conductive material, wherein the second longitudinally-extending constituent is in longitudinal contact with the surface of the first longitudinally-extending constituent.

43. (Withdrawn) The fabric of claim 42, wherein the second longitudinally-extending constituent comprises conductive polymer.

44. (Withdrawn) The fabric of claim 43, wherein the first longitudinally-extending constituent forms a core of the fiber and the second longitudinally-extending constituent forms a sheath around at least part of the circumference of the core.

45. (Withdrawn) The fabric of claim 44, wherein the second longitudinally-extending constituent forms a sheath around the entire circumference of the core.

46. (Withdrawn) The fabric of claim 44, wherein said bicomponent conductive staple fibers make up at least about 50 percent by weight of the staple fibers in those yarns in which the bicomponent conductive staple fibers are incorporated.

47. (Withdrawn) The fabric of claim 44, wherein said bicomponent conductive staple fibers make up substantially 100 percent of the staple fibers in those yarns in which the bicomponent conductive staple fibers are incorporated.

48. (Withdrawn) The fabric of claim 43, wherein the second longitudinally-extending constituent is in the form of at least one longitudinal stripe partially encapsulated within the first longitudinally-extending constituent.

49. (Withdrawn) The fabric of claim 48, wherein said bicomponent conductive staple fibers make up at least about 50 percent by weight of the staple fibers in those yarns in which the bicomponent conductive staple fibers are incorporated.

50. (Withdrawn) The fabric of claim 48, wherein said bicomponent conductive staple fibers make up substantially 100 percent of the staple fibers in those yarns in which the bicomponent conductive staple fibers are incorporated.

51. (Withdrawn) The fabric of claim 30, wherein the plurality of staple fibers comprises at least some quasi-conductive staple fibers.

52. (Withdrawn) The fabric of claim 51, wherein at least some of the quasi-conductive staple fibers are bicomponent staple fibers.

53. Withdrawn) The fabric of claim 52, wherein the individual bicomponent staple fibers each comprise

a first longitudinally-extending constituent formed of at least one fiber-forming non-conductive polymer; and
a second longitudinally-extending constituent formed of at least one conductive material, wherein the second longitudinally-extending constituent is in longitudinal contact with the surface of the first longitudinally-extending constituent.

54. (Withdrawn) The fabric of claim 53, wherein the second longitudinally-extending constituent comprises conductive polymer.

55. (Withdrawn) The fabric of claim 54, wherein the second longitudinally-extending constituent forms a core of the fiber and the first longitudinally-extending constituent forms a sheath around at least part of the circumference of the core.

56. (Withdrawn) The fabric of claim 55, wherein the first longitudinally-extending constituent forms a sheath around the entire circumference of the core.

57. (Withdrawn) The fabric of claim 54, wherein said bicomponent quasi-conductive staple fibers make up at least about 50 percent by weight of the staple fibers in those yarns in which the quasi-conductive staple fibers are incorporated.

58. (Withdrawn) The fabric of claim 54, wherein said bicomponent quasi-conductive staple fibers make up substantially 100 percent of the staple fibers in those yarns in which the quasi-conductive staple fibers are incorporated.

59. (Withdrawn) A carpet comprising
at least one backing layer and
a plurality of carpet piles bonded thereto,
at least some of the piles or at least one backing layer comprising yarn that comprises a plurality of staple fibers chosen from the group consisting of conductive staple fibers, quasi-conductive staple fibers and mixtures of conductive and quasi-conductive staple fibers, the staple fibers from this group making up at least about 35 percent by weight of the staple fibers in the said yarn.

60. (Withdrawn) The carpet of claim 59, wherein the plurality of staple fibers from said group makes up at least 50 percent by weight of the staple fibers in the said yarn.

61. (Withdrawn) The carpet of claim 59, wherein the plurality of staple fibers from said group makes up substantially 100 percent of the staple fibers the said yarn.

62. (Withdrawn) The carpet of claim 59, wherein the plurality of staple fibers comprises at least some conductive staple fibers.

63. (Withdrawn) The carpet of claim 62, wherein the individual conductive staple fibers have a DC linear resistance less than about 10^9 ohms per centimeter.

64. (Withdrawn) The carpet of claim 63, wherein at least some of the conductive staple fibers comprise metal.

65. (Withdrawn) The carpet of claim 63, wherein at least some of the conductive staple fibers are comprise non-conductive polymer and are coated with metal.

66. (Withdrawn) The carpet of claim 63, wherein at least some of the conductive staple fibers comprise carbon-loaded polymer.

67. (Withdrawn) The carpet of claim 63, wherein at least some of the conductive staple fibers comprise polymer loaded with antimony-doped tin oxide.

68. (Withdrawn) The carpet of claim 63, wherein at least some of the conductive staple fibers comprise non-conductive polymer and are solution-coated with one or more electrically-conductive polymers.

69. (Withdrawn) The carpet of claim 63, wherein at least some of the conductive staple fibers comprise inherently-conductive polymer.

70. (Withdrawn) The carpet of claim 63, wherein at least some of the conductive staple fibers are bicomponent staple fibers.

71. (Withdrawn) The yarn of claim 70, wherein the individual bicomponent staple fibers each comprise

a first longitudinally-extending constituent formed of at least one fiber-forming non-conductive polymer; and

a second longitudinally-extending constituent formed of at least one conductive material, wherein the second longitudinally-extending constituent is in longitudinal contact with the surface of the first longitudinally-extending constituent.

72. (Withdrawn) The carpet of claim 71, wherein the second longitudinally-extending constituent comprises conductive polymer.

73. (Withdrawn) The carpet of claim 72, wherein the first longitudinally-extending constituent forms a core of the fiber and the second longitudinally-extending constituent forms a sheath around at least part of the circumference of the core.

74. (Withdrawn) The carpet of claim 73, wherein the second longitudinally-extending constituent forms a sheath around the entire circumference of the core.

75. (Withdrawn) The carpet of claim 74, wherein said bicomponent conductive staple fibers make up at least 50 percent by weight of the staple fibers the said yarn.

76. (Withdrawn) The carpet of claim 74, wherein said bicomponent conductive staple fibers make up substantially 100 percent of the staple fibers the said yarn.

77. (Withdrawn) The carpet of claim 72, wherein the second longitudinally-extending constituent is in the form of at least one longitudinal stripe partially encapsulated within the first longitudinally-extending constituent.

78. (Withdrawn) The carpet of claim 77, wherein said bicomponent conductive staple fibers make up at least about 50 percent by weight of the staple fibers said yarn.

79. (Withdrawn) The carpet of claim 77, wherein said bicomponent conductive staple fibers make up substantially 100 percent of the staple fibers said yarn.

80. (Withdrawn) The carpet of claim 59, wherein the plurality of staple fibers comprises at least some quasi-conductive staple fibers.

81. (Withdrawn) The carpet of claim 80, wherein at least some of the quasi-conductive staple fibers are bicomponent staple fibers.

82. (Withdrawn) The carpet of claim 81, wherein the individual bicomponent staple fibers each comprise

a first longitudinally-extending constituent formed of at least one fiber-forming non-conductive polymer; and

a second longitudinally-extending constituent formed of at least one conductive material, wherein the second longitudinally-extending constituent is in longitudinal contact with the surface of the first longitudinally-extending constituent.

83. (Withdrawn) The carpet of claim 82, wherein the second longitudinally-extending constituent comprises conductive polymer.

84. (Withdrawn) The carpet of claim 83, wherein the second longitudinally-extending constituent forms a core of the fiber and the first longitudinally-extending constituent forms a sheath around at least part of the circumference of the core.

85. (Withdrawn) The carpet of claim 84, wherein the first longitudinally-extending constituent forms a sheath around the entire circumference of the core.

86. (Withdrawn) The carpet of claim 85, wherein said bicomponent quasi-conductive staple fibers make up at least about 50 percent by weight of the staple fibers the said yarn.

87. (Withdrawn) The carpet of claim 85, wherein said bicomponent quasi-conductive staple fibers make up substantially 100 percent of the staple fibers the said yarn.

88. (Withdrawn) A fiber blend for use in antistatic yarns, the blend comprising a plurality of staple fibers comprising non-conductive staple fibers and staple fibers chosen from the group consisting of conductive staple fibers, quasi-conductive staple fibers and mixtures of conductive and quasi-conductive staple fibers, the fibers from this group making up at least about 35 percent by weight of the staple fibers in the fiber blend.

89. (Withdrawn) The fiber blend of claim 88, wherein the plurality of staple fibers comprises at least some conductive staple fibers.

90. (Withdrawn) The fiber blend of claim 89, wherein the individual conductive staple fibers have a DC linear resistance less than about 10^9 ohms per centimeter.

91. (Withdrawn) The fiber blend of claim 90, wherein at least some of the conductive staple fibers comprise metal.

92. (Withdrawn) The fiber blend of claim 90, wherein at least some of the conductive staple fibers comprise inherently-conductive polymer.

93. (Withdrawn) The fiber blend of claim 90, wherein at least some of the conductive staple fibers are bicomponent staple fibers.

94. (Withdrawn) The fiber blend of claim 93, wherein the individual bicomponent staple fibers each comprise

a first longitudinally-extending constituent formed of at least one fiber-forming non-conductive polymer; and

a second longitudinally-extending constituent formed of at least one conductive material, wherein the second longitudinally-extending constituent is in longitudinal contact with the surface of the first longitudinally-extending constituent.

95. (Withdrawn) The fiber blend of claim 94, wherein the second longitudinally-extending constituent comprises conductive polymer.

96. (Withdrawn) The fiber blend of claim 95, wherein the first longitudinally-extending constituent forms a core of the fiber and the second longitudinally-extending constituent forms a sheath around at least part of the circumference of the core.

97. (Withdrawn) The fiber blend of claim 93, wherein the second longitudinally-extending constituent is in the form of at least one longitudinal stripe partially encapsulated within the first longitudinally-extending constituent.

98. (Withdrawn) The fiber blend of claim 88, wherein the plurality of staple fibers comprises at least some quasi-conductive staple fibers.

99. (Withdrawn) The fiber blend of claim 98, wherein at least some of the quasi-conductive staple fibers are bicomponent staple fibers.

100. (Withdrawn) A fiber blend for use in antistatic yarns, the blend comprising a mixture of conductive and quasi-conductive staple fibers.

101 – 112. (Cancelled)

113. (New) A yarn comprising a combination of (i) a plurality of continuous fibers; and (ii) a plurality of staple fibers chosen from the group consisting of conductive staple fibers, quasi-conductive staple fibers and mixtures of conductive and quasi-conductive staple fibers, the fibers from this group making up at least about 35 percent by weight of all the staple fibers in the yarn.

114. (New) The yarn of claim 113, wherein the plurality of continuous fibers comprises at least some conductive fibers.

115. (New) The yarn of claim 113, wherein the plurality of continuous fibers forms a core that is at least in part surrounded by a sheath comprising the plurality of stable fibers.

116. (New) The yarn of claim 115, wherein the plurality of staple fibers comprises at least some conductive staple fibers.

117. (New) The yarn of claim 116, wherein the individual conductive staple fibers have a DC resistivity less than about 10^9 ohms per centimeter.

118. (New) The yarn of claim 116, wherein at least some of the conductive staple fibers comprise carbon-loaded polymer.

119. (New) The yarn of claim 116, wherein at least some of the conductive staple fibers comprise polymer loaded with antimony-doped tin oxide.

120. (New) The yarn of claim 116, wherein at least some of the conductive staple fibers comprise non-conductive polymer and are solution-coated with one or more electrically-conductive polymers.

121. (New) The yarn of claim 116, wherein at least some of the conductive staple fibers comprise inherently-conductive polymer.

122. (New) The yarn of claim 116, wherein at least some of the conductive staple fibers are bicomponent staple fibers.

123. (New) The yarn of claim 112, wherein the individual bicomponent staple fibers each comprise

a first longitudinally-extending constituent formed of at least one fiber-forming non-conductive polymer; and

a second longitudinally-extending constituent formed of at least one conductive material, wherein the second longitudinally-extending constituent is in longitudinal contact with the surface of the first longitudinally-extending constituent.

124. (New) The yarn of claim 123, wherein the second longitudinally-extending constituent comprises conductive polymer.

125. (New) The yarn of claim 124, wherein the first longitudinally-extending constituent forms a core of the fiber and the second longitudinally-extending constituent forms a sheath around at least part of the circumference of the core.

126. (New) The yarn of claim 125, wherein the second longitudinally-extending constituent forms a sheath around the entire circumference of the core.

127. (New) The yarn of claim 126, wherein said bicomponent conductive staple fibers make up at least about 50 percent by weight of all the staple fibers in the yarn.

128. (New) The yarn of claim 126, wherein said bicomponent conductive staple fibers make up substantially 100 percent of all the staple fibers in the yarn.

129. (New) The yarn of claim 124, wherein the second longitudinally-extending constituent is in the form of at least one longitudinal stripe on the surface of the first longitudinally-extending constituent.

130. (New) The yarn of claim 129, wherein said bicomponent conductive staple fibers make up at least about 50 percent by weight of all the staple fibers in the yarn.

131. (New) The yarn of claim 129, wherein said bicomponent conductive staple fibers make up substantially 100 percent of all the staple fibers in the yarn.

132. (New) The yarn of claim 115, wherein the plurality of staple fibers comprises at least some quasi-conductive staple fibers.

133. (New) The yarn of claim 132, wherein at least some of the quasi-conductive staple fibers are bicomponent staple fibers.

134. (New) The yarn of claim 133, wherein the individual bicomponent staple fibers each comprise

a first longitudinally-extending constituent formed of at least one fiber-forming non-conductive polymer; and

a second longitudinally-extending constituent formed of at least one conductive material, wherein the second longitudinally-extending constituent is in longitudinal contact with the surface of the first longitudinally-extending constituent.

133. (New) The yarn of claim 132, wherein the second longitudinally-extending constituent comprises conductive polymer.

134. (New) The yarn of claim 133, wherein the second longitudinally-extending constituent forms a core of the fiber and the first longitudinally-extending constituent forms a sheath around at least part of the circumference of the core.

135. (New) The yarn of claim 134, wherein the first longitudinally-extending constituent forms a sheath around the entire circumference of the core.

136. (New) The yarn of claim 135, wherein said bicomponent quasi-conductive staple fibers make up at least about 50 percent by weight of all the staple fibers in the yarn.

137. (New) The yarn of claim 135, wherein said bicomponent quasi-conductive staple fibers make up substantially 100 percent of all the staple fibers in the yarn.

The Examiner is invited to contact the undersigned attorney at (713) 787-1418 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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